

NEW FORMS AND SPECIES IN THE GENUS
CATASTICTA—II (PIERIDAE:
RHOPALOCERA).

BY F. MARTIN BROWN AND A. G. GABRIEL.

This paper describes material principally from the British Museum of Natural History. Mr. Gabriel is responsible for having recognized the forms and species as being unnamed. Mr. Brown has made the comparisons, written the descriptions and is responsible for errors.

Catanticta tatae, n. sp. ♀.

Males—Upperside: This is black-brown with a white discal band. The band is trapezoidal in shape. Its outer margin extends from the third median nervule just outside the cell to the inner margin at a point almost one quarter the distance in from the inner angle. It is not straight but scalloped. The inner margin of the band originates at a point almost equidistant from the subcostal, discocellular and median nervules and extends in a straight but slightly suffused line to the inner margin, meeting it about one-third of the distance out from the base. There is a limbal series of white spots between each pair of nervules except the fourth and fifth subcostal branches. A series of fine white dashes may or may not be present along the margin between the nervules. Two additional white spots are found just beyond the end of the cell between the radial and the subcostal and between the subcostal and its second branch.

On the hindwings the discal area is white and the limbal and extreme basal areas are black-brown. The basal area is heavily powdered with white scales and hair-scales. The dark limbal area extends to the end of the cell. The contact between this dark area and the white discal portion is suffused. Along this contact zone is a row of white internerval spots that are not distinct because of the suffusion. There may or may not be a series of white internerval marginal spots. The dark limbal band of these wings is much narrower than in *pitana* although both extend in to the end of the cell. (The third branch of the median nervule in *pitana* is 0.68 (0.66–0.71) times the length of the cell while in *tatae* it is only 0.51 (0.43–0.58).) The nervules are faintly lined with black-brown.

Underside: The forewings on this surface are marked precisely as on the upperside; the dark markings are, however, very dilute and the marginal series distinct.

The markings of the hindwings are divided into three zones similar to those on the upper surface but with the central white zone almost eliminated and indistinct. The white markings of the margin and limbal area are repeated in a dull yellow. There are rather broad indistinct lines between the nervules of the discal area, pale orange-ochre in color. In the basal area there are several dull yellow spots and two dull red spots one on each side of the attachment to the thorax. The dark color of the wings is intensified basad from each of the yellow markings in the limbal area especially as the anal angle is approached. The nervules are distinctly lined with black-brown.

Females—Upperside: This surface is much the same as is found on the same sex of *C. chiricana* Roeber. The white maculation on the forewings is reduced when compared with that species, but I have before me a specimen of *chiricana* that agrees with the allotype of *tatae* in this respect. The same is true of the hindwings.

Underside: Here the sexes compare favorably. Compared with *chiricana* it is duller and the yellow spots less distinct. The limbal area is more extensive than in the males of *tatae*, reaching the origins of the upper radial and first median nervules.

Average length of the costa of the forewing: 24.3 mm. (23-26).

Type localities and repositories of the types:

Holotype male, Alamor, Ecuador, September; American Museum of Natural History, New York City.

Allotype female, Quito, Ecuador; British Museum, London, England.

Paratype males 1 and 2, Sebollal, Ecuador, October; American Museum of Natural History, New York City.

Paratype male 3, Huigra, Western Ecuador, II.20.13, 2500 feet; British Museum, London, England.

Paratype males 4 and 5, Cauca, Colombia, winter 1897-1898; British Museum, London, England.

Paratype male 6, "New Granada" (*i.e.*, Colombia); British Museum, London, England.

This species is very close to *Sisamnus pitana* and may easily be confused with it. Whether it should be considered a full species or as a race of *chiricana* Roeber is difficult to decide. I have eight specimens before me and am inclined to consider it a full species.

A much longer series might show full intergradation to *chiricana*. The principal distinctions from *sisamnius* are the greater extent of the white on the upper side of the hindwings, the dull character of the markings on the under side of the same wings, and in the males the form of the wings; from *chiricana* the great restriction of white on the upperside of the hindwings on the males and the reduction of the white maculation on the upper surface of the forewings of the females.

The species has been named for the collector of the type, Mr. G. H. H. Tate of the American Museum of Natural History.

Catanticta reducta butleria, n. subsp. ✓

Males—Upperside: This surface is much like that of *reducta*. The basic light color is a little darker and the dark markings are more extensive. The limbal dark zone on the forewings is wider, about one-third the width of the wing. The limbal series is complete as is the inconspicuous marginal series of dashes. The basal dark area is suffused more strongly with scales of the light color. There is a light suffused streak along the median margin of the cell. The spots of the discal area are smaller and narrower because of the extension of the limbal zone and the dark streaks on the nervules.

The hindwings show the same increased marking on the nervules and folds across the discal area. Both limbal and marginal series are complete.

Underside: The forewings are like those of *reducta* with the discal area somewhat restricted.

The hindwings show the restriction to a greater degree. The limbal zone crosses the cell at the origins of the upper radial and first median nervules. The basal area extends beyond the origin of the subcostal. This leaves an extremely narrow light discal band obscurely crossed by yellow stripes between the nervules. It is wider anterior to the cell. The costal-precostal area is dark. The basal, limbal, discocellular and marginal spots are small. There are dark patches on the brown limbal area basad of all the yellow spots in that area. The pearly submarginal series is reduced to occasional scales in each interspace. Only the posterior red basal spot is evident.

Females—Upperside: The maculation of the sexes is the same. The basic light color of the forewings in this sex is white tinged with yellow toward the inner margin; of the hindwings it is lemon yellow.

Underside: This surface with one exception is identical with that of the males. The basic light color of the forewings is white and not dilute orange yellow as in the males.

Average length of the costa of the forewing: 24 mm.

Type locality: West slope of Andes, Northern Perú.

Repository of the types: Holotype male and allotype female, British Museum, London, England.

Catasticta grossana, n. sp. ♀

Upperside: These surfaces show some similarity to *reducta* forms and *susiana*. The contour of the wings is intermediate, as is the pattern. The basic light color is white, the pattern is a rich dark brown. On the forewings the limbal zone covers fully the outer third of the wings. The limbal series is complete and is made up of small spots. The marginal series of dashes is evident only in the apical region. The basal dark area extends as far as the origin of the first median branch and fills the cell except for a small patch at the end. The discal area is crossed by broad dark lines on the nervules. The discal band is thus intermediate in appearance to *reducta* and *susiana*.

On the hindwings the limbal band cuts across the cell inside of the origins of the lower radial and second median nervules. Its inner margin is rather sharply defined as in *susiana*, but curved as in *reducta*. The basal area is rather clearly defined and again intermediate to the two species just mentioned. The nervules across the discal area are marked with dark scales as heavily as in *reducta*. The limbal and marginal series are complete and made up of small spots.

Underside: Here the alliance of this species to the *reducta*-group is clear. The forewings resemble those of *reducta* with a reduced discal band and somewhat reduced markings in the limbal area.

The hindwings are intermediate between *reducta* and its race *butleria* in all respects: width of the limbal and discal bands, the pearly submarginal series and the prominence of the yellow internerval markings. They show the group character of a dark costal-precostal area.

Length of the costa of the forewing: 25 mm.

Type Locality: "Colombia."

Repository of the type: British Museum, London, England.

Catantacta chelidonis form *germainia*, n. form. ✓

Upperside: This is a suffused form of the stem-species. The light basic color is not so bright as on the type, but is well within the range of normal specimens. The limbal series is obsolete except for the anal spot on the hindwings which is abnormally large and suffuse. The nervules are a little more heavily marked than in typical *chelidonis*.

Underside: This surface is like that of *chelidonis* with the pearly submarginal markings greatly reduced. The reduction has been brought about principally by the extension of the dark marginings of the marginal series.

Length of the costa of the forewing:

Type locality: Cochabama, Yungas del Espiritu Santo, Bolivia.

Repository of the type: British Museum, London, England.

The form is named for P. Germain who collected the specimen for Dr. Rene Oberthür.

Catantacta discalba, n. sp. ✓

Male—Upperside: This species is very easily recognized. The basic light color is white, the dark pattern color is dark brown. On the forewing the dark limbal zone covers a little more than one-third of the wing. The inner margin of the band has a distinct jog in it between the third branch of the median and the lower radial nervules. The limbal series is complete, but obscure throughout. The marginal series is lacking or present as mere traces of internerval dashes. The basal dark area is extensive and fills the entire cell. The light discal band is narrow and tapers from the inner margin toward the costa. It is crossed by broad lines of dark scales especially toward the base. The ante-discocellular series consist of three well separated spots. Except that the outer margin is less sharply indented this wing is reminiscent of *C. susiana*.

The hindwing has a broad dark limbal band that crosses the cell at the origins of the lower radial and median-two nervules. It narrows slightly toward the inner margin. The limbal and marginal series are obsolete or absent. The dark basal area is moderately extensive, crossing the cell at the origin of the subcosta and about halfway from the base to the origin of the first branch of the median nervule. The light discal area is broad and conspicuously free from dark scales, the usual lines of dark scales on the nervules are very narrow. This wing resembles *C. chelidonis* in pattern, but not color.

Underside: On this surface the forewing is in general typical of the *susiana*-group. There is only a small patch of white scales in the end of the cell.

The hindwing resembles to some extent that of *C. chelidonis*. The dark limbal area is about as extensive as on the upper surface. The marginal series is made up of rather large, moderately acute, yellow, straight sided triangles that are broadly outlined with rich brown scales. The apices of these brown margins touch the rather large yellow limbal spots. The areas between are filled with pearly scales. The inner portion of the dilute dark brown part of the limbal band shows the usual increase in intensity basad of each yellow limbal spot. The basal dark patch is a little more extensive on this surface than on the upper. There is a series of small yellow spots and dashes in this dark area. The costal-precostal area is yellow. The white or pearly scales of the discal band are almost eliminated by the great extension of the broad sulphur yellow internerval streaks. The posterior red basal patch is small, the anterior apparently lacking.

Length of the costa of the forewing: 28 mm.

Type localities: Loja and San Francisco, Ecuador.

Repository of the types:

Holotype male: Loja, Ecuador; British Museum, London, England.

Paratype male: San Francisco, Ecuador; British Museum.

Catanticta philomene philomene form **naranja**, n. form. ✓

Male—Upperside: the maculation in this form is as in *philomene*, however, the basic light color is vivid orange and not yellow.

Underside: On this surface the form differs from the stem-form in that the discal area of the forewing is rusty yellow, the limbal band of the hindwings wider and therefore the discal area reduced and all of the spots and streaks on the hindwing that are normally yellow are bright orange.

Average length of the costa of the forewing: 27 mm.

Type localities:

Holotype male; N. E. Sorata, Bolivia.

Paratype male; Apolobamba, Bolivia.

Both are in the Godman and Salvin Collection of the British Museum, London, England.

Catasticta smithia, n. sp. ✓

Male—Upperside: A clear cut black and white pattern with the dark color predominant. On the forewings the dark limbal band covers the outer third of the wing. The limbal series is complete and made up of small spots. The marginal series of white dashes is conspicuous in the apical region only. The dark basal area fills the cell and extends almost to the mid-point of the inner margin. The light discal band is somewhat suffused with black scales and broken into blocks by the heavily marked nervules.

On the hindwings the limbal band is broad, almost reaching the origins of the upper radial and the first branch of the median nervules. The dark basal area extends to the origin of the subcostal nervule. The narrow light discal band is suffused as on the forewing and crossed by dark lines on the nervules. These lines of dark scales are not so broad as on the forewing. The limbal series is made up of crescentic patches with the horns outward and is placed on the outer half of the band. The marginal series is complete and made up of suffused triangular patches in the interspaces.

Underside: This form differs from *distincta* on these surfaces in only one respect: the discal light zone of the forewings is reduced and barely enters the cell at its extremity.

Length of the costa of the forewing: ?

Type locality: "Peru."

Repository of the type: British Museum, London, England.

The insect described may be an aberrant *distincta*. Whether it is or deserves full specific standing will depend upon further material.

Catasticta frontina, n. sp. ✓

This species may be a highly modified form of *suasa*. It is quite variable, but the maculation of the underside of the hindwings is characteristic.

Upperside: The basic light color on these surfaces is much obscured by overscaling of the dark pattern color and varies from almost white to distinctly yellow. The dark pattern color is a rich brown. The marginal series on the forewing is restricted to a few dashes in the apical region. The dark limbal zone extends two-thirds of the distance to the end of the cell. The limbal series of small rounded suffuse spots is nearer to the inner margin of the band than to the margin

of the wing. The dark basal area covers about one-third of the wing and fills the cell except for the extreme outer end. The nervules are all rather broadly lined with dark scales. The broken discal band is dulled with an overlay of dark scales.

The hindwings are in character with the forewings. The marginal series is complete, but obscure. The dark limbal series is nearer the cell than to the margin of the wing and is made up of suffuse acute marks of moderate size. The dark basal area is practically absent. The nervules and folds are lined with dark scales. The discal band is uniformly overlaid with dark scales.

Underside: The forewings are marked as on the upper side with the usual modifications. The marginal series is complete and made up of linear triangular patches; those in the apex are rather broader across the base. The yellow-buff limbal series of spots are lunulate, encircling the ends of the marginal series. The buff discal band is free of suffusion. The basal area is slightly overlaid with light scales and a light line extended from the base along the mid-line of the cell to about the middle of the cell. There are light lines along the subcostal and radial nervules at the base.

On the hindwings the dark limbal area almost reaches the origins of the M_1 and Cu_2 nervules. The marginal series is made up of large acute yellow triangles, the bases almost contiguous. These are broadly margined with dark brown, darkest against the yellow. The submarginal pearly markings are reduced to a pair of oblique dashes paralleling each of the marginal series spots just beyond their apices. The limbal yellow series is nearer the cell than the margin of the wing and has dark basal extensions from each spot. Two small yellow spots straddle the lower discocellular nervule. The dark basal area extends just beyond the origin of the R_s in the cell. The pearly discal band is slightly wider outside the cell. It is crossed by moderately broad yellow streaks which are brokenly extended into the dark basal area. The nervules and folds are dark lined. The basal red spots are both present.

Length of the costal margin of the forewing: 28 mm.

Type: a male, Frontino, Antioquía, Colombia, in British Museum.
Paratypes: all males.

one, "Interior of Colombia," British Museum.

- one, Gualaquiza, Ecuador, in British Museum.
- one, Loja, Ecuador, in British Museum.
- one, Cosnipata Valley, Peru, in British Museum.
- one, No datum, Maasen Coll. Zoological Museum, University of Berlin, Germany.

Catasticta philoscia form **ferra**, n. form. ✓

Upperside: This form differs from typical *philoscia* in the basic light color. On *philoscia* it is white or pale yellow; on this form light rusty red. The pattern of dark colored scales is the same for both forms.

Underside: The maculation is the same as that found on form *philothea*. The basic color of the forewings is orange and the yellow markings on both wings a little richer than on *philothea*.

Average length of the costal margin of the forewing: 26 mm.

Type: a male, Ambato, Ecuador, in the British Museum.

Paratypes: three males with same data as the type in the British Museum.

A male, Ecuador, in the British Museum.

Catasticta giga, n. sp. ✓

Upperside: This surface has a basic light color of pale ochre. The maculation of the forewings is like that on *troezene*. The hindwings are patterned like *seitzi*, but are shaped more like *troezene*. The outstanding character of the surface is the uniform dark overscaling in the discal areas. The inner portion of the limbal band on the hindwings reaches the Cu_2 nervule. The marginal spots of the hindwing are moderately large and rather clear throughout.

Underside: Here this curious species resembles most closely *affinis* in all respects but two. There is a large streak of ochre scales along the middle of the cell of the forewing and the dark margins of the triangular marginal series of spots on the hindwings are narrow.

Average length of costal margin of forewings: 28 mm.

Type: a male, Frontino, Antioquía, Colombia, in the British Museum.

Paratypes: two males same data in the British Museum.

Catasticta gelba, n. sp. ✓

Males—Upperside: The light basic color is ochre-yellow,

the pattern color black-brown. The forewings are marked like *troezene*, but the light discal area is a little more prominent.

The hindwings are intermediate to *troezene* and *affinis* in maculation. The limbal dark band extends to the origin of the M_2 and M_3 nervules. The spots of the marginal series are small and only those in the anal region are clear. The spots of the limbal series are large and suffuse.

Underside: The forewings are a repetition of the upperside with the discal area free of overscaling and the limbal and marginal series of spots larger. The marginal series is composed of short yellow wedges. There are some pearly white patches in the apex between the two series of spots. The hindwings resemble *zancla* but are more intensely marked. The dark margins of the triangles composing the marginal series are broad and somewhat reduce the pearly submarginal band. The dark inner portion of the limbal band is about one-third the total width of the band. The dark basal area reaches the origin of the R_s .

Female—Upperside: This is similar to that of the males, but much lighter, the forewing having a whitish-yellow and the hindwing a pale lemon-yellow basic color. The limbal and marginal series of both wings are obsolescent.

Underside: Again similar to the males, but with a much narrower margin of brown on the marginal series of spots on the hindwing.

This sex differs from the same sex of *zancla* in the greater width of the limbal band on the upperside and the absence of the marginal and limbal series.

Length of the costal margin of the forewing: 25 mm.

Types: Holotype male, Mérida, Venezuela, in British Museum. Allotype female and one paratype male "Venezuela" in British Museum.

Catasticta rileyae.

Upperside: This surface resembles that on *philoscia* f. *philoschia* Felder. It is on the underside that the affinity with the *uricoecheae* group is seen. The basic light color, dilute orange-yellow, is totally obscured by heavy overscaling of rich black-brown pattern color. The limbal band is about a third the width of the wing and is decorated with a complete limbal

series of sagittal marks nearer the inner margin than to the margin of the wing. A complete series of marginal dashes is present. The basal dark area is almost entirely confined to the costal portion of the cell. The broad overscaled discal band is crossed by heavy lines of dark scales on the nervules.

The hindwings are marked similarly. The limbal band just falls short of the cell. The limbal series is large and the spots only separated by the dark lines on the nervules. The marginal series is composed of small light triangles. The dark basal area is absent.

Underside: The forewings are bright orange patterned with warm brown, yellow, and white. The limbal band is of the same width as on the upperside. The limbal series is contiguous, the anterior spots are white and the posterior ones orange. The marginal series of slender wedges is yellow. The greater portion of the cell is orange. The basal dark area extends to a point beyond the origin of the Cu_2 nervule.

The hindwings are interesting. The limbal dark area is broken into three distinct bands: A marginal band of rich chocolate brown marked with a marginal series of triangular spots with deeply incurved sides; a pearly submarginal band about the same width crossed by narrowly lined nervules and the streak of the limbal series; and a dark inner portion occupying more than half of the entire width of the limbal band in which the limbal series of yellow streaks originate and marked basad of each streak with darker brown. The narrow discal band of glistening white is crossed by the usual yellow streaks and the dark lines on the nervules. The basal dark area extends to just beyond the R_s nervule and is marked with broken extensions of the discal yellow streaks. The basal spots are dull red and minute.

Average length of the costal margin of the forewing: 25 mm.

Type and paratype: 2 males, Chachapoyas, Amazonas, Perú, in the British Museum.

Paratype, a male, near Rioja, San Martín, 900 m., XI.9.36. Coll. F. M. Brown.

Catantia rileyana form **tamsa** n. form.

Upperside: This form differs from the typical in being grayer.

Underside: Generally lighter than the typical form. The submarginal pearly band on the hindwings is narrower and

the white does not extend so far toward the inner margin on the limbal series of the forewing.

Type: a male Utcuyaco, Perú, 4800 feet, in the British Museum.

Paratypes: a male Chanchamayo, Perú; a male Río Tabaconas, 6000 feet, Perú; both in the British Museum.

The three specimens of *tamsa* vary somewhat in the extent of the inner margin of the limbal band on the upperside of the hindwings. The type is intermediate to the paratypes in this respect and is not like *rileya*.

Glyptoscelimorpha viridis Chamberlin (Coleoptera—Buprestidae).—This small buprestid beetle is very uncommon in collections and very little is known about its distribution or habits at the present time. It seems worthy to record the capture of this rarity some two hundred miles from its previously known range. As far as known, the only previous records have been from the vicinity of Palmdale, Los Angeles Co., California. While looking over some material collected by Dr. R. H. Beamer, of the University of Kansas, in southern California the author came across five specimens that were collected on Juniper at Mt. Springs filling station about seven miles east of Jacumba, San Diego Co., Calif., July 25, 1938. This would indicate that the species is rather widely distributed in southern California and probably follows the distribution of the Junipers along the foothills. Perhaps a seasonal peculiarity accounts for its relative scarcity in collections.—Mont A. Cazier, Berkeley, Calif.

Two New United States Records of Heteroptera.—The most striking of these records is the cydnid *Syllobus emarginatus* Stål, a Mexican species heretofore not known from north of the border, of which I have one specimen labelled "Fla."

The other is the record of *Podops peninsularis* Blatchley from White Plains, N. Y., April 21, 1912. This is the specimen determined by me as *parvulus* Van Duzee, and so recorded in the New York State List.—J. R. de la Torre-Bueno, Tucson, Ariz.